

1       1. In a network environment that includes a public network such as the  
2 Internet and a private corporate network contained in the public network, the public  
3 network including a client external to the private corporate network, a method of a  
4 communications device of the external client establishing a secure connection over a public  
5 network to the private corporate network without restricting the communications device to  
6 working through the private corporate network, the method comprising the following;

7                  a specific act of the external client establishing a connection with the private  
8 corporate network over the public network using the communication device;

9                  a specific act of the external client providing security to the connection;

10                 a specific act of the external client maintaining a session that uses the secure  
11 connection to communicate with the private corporate network; and

12                 during at least a portion of the specific act of the external client maintaining  
13 a session that uses the secure connection, a specific act of the communication  
14 device retaining the ability to establish a separate and distinct connection with  
15 another resource outside of the private corporate network.

16  
17       2. A method in accordance with Claim 1, further comprising:

18                 during at least a portion of the specific act of the external client maintaining  
19 a session that uses the secure connection, a specific act of establish a connection  
20 with the resource outside of the private corporate network.

21  
22       3. A method in accordance with Claim 1, wherein the specific act of the  
23 external client establishing a connection with the private corporate network comprises:

1                   a specific act of using Transmission Control Protocol (TCP) to establish a  
2 connection with the private corporate network.

3

4         4. A method in accordance with Claim 3, wherein the specific act of the  
5 external client providing security to the connection comprises:

6                   a specific act of the external client using a Secure Socket Layer (SSL)  
7 protocol to provide security to the connection.

8

9         5. A method in accordance with Claim 1, wherein the specific act of the  
10 external client providing security to the connection comprises:

11                  a specific act of implementing a security protocol that resides at or above a  
12 socket layer in the protocol stack used to communicate data from the external client  
13 to the private corporate network.

14

15         6. A method in accordance with Claim 5, wherein the specific act of the  
16 external client providing security to the connection comprises:

17                  a specific act of the external client using a Secure Socket Layer (SSL)  
18 protocol to provide security to the connection.

19

20         7. A method in accordance with Claim 5, wherein the specific act of the  
21 external client providing security to the connection comprises:

22                  a specific act of the external client using a Wireless Transport Layer  
23 Security (WTLS) to provide security to the connection.

1       8. A method in accordance with Claim 1, wherein the specific act of the  
2 external client establishing a connection with the private corporate network comprises:

3              a specific act of the external client establishing a connection with a Virtual  
4 Privacy Network (VPN) access server in the private corporate network.

5

6       9. A method in accordance with Claim 8, wherein the VPN access server is  
7 implemented on the same server machine as a proxy server that serves the private  
8 corporate network.

9

10      10. A method in accordance with Claim 8, wherein the VPN access server is  
11 implemented on a different server machine than a proxy server that serves the private  
12 corporate network.

13

14      11. A method in accordance with Claim 1, wherein the public network  
15 comprises portions of the Internet.

1           12. In a computer program product for use in a network environment that  
2 includes a public network such as the Internet and a private corporate network contained in  
3 the public network, the public network including a client external to the private corporate  
4 network, the computer program product for implementing a method of a communications  
5 device of the external client establishing a secure connection over a public network to the  
6 private corporate network without restricting the communications device to working  
7 through the private corporate network, the computer program product including a  
8 computer-readable medium having stored thereon computer-executable instructions for  
9 performing the following;

10                 a specific act of the external client establishing a connection with the private  
11                 corporate network over the public network using the communication device;  
12                 a specific act of the external client providing security to the connection;  
13                 a specific act of the external client maintaining a session that uses the secure  
14                 connection to communicate with the private corporate network; and  
15                 during at least a portion of the specific act of the external client maintaining  
16                 a session that uses the secure connection, a specific act of the communication  
17                 device retaining the ability to establish a separate and distinct connection with  
18                 another resource outside of the private corporate network.

19  
20           13. A computer program product in accordance with Claim 12, wherein the  
21           computer-readable media comprises a tangible computer readable medium.

22  
23           14. A computer program product in accordance with Claim 12, wherein the  
24           computer-executable instructions for performing the specific act of the external client

1 establishing a connection with the private corporate network comprises a Transmission  
2 Control Protocol (TCP) module.

3

4 15. A computer program product in accordance with Claim 14, wherein the  
5 computer-executable instructions for performing a specific act of the external client  
6 providing security to the connection comprises a Secure Socket Layer (SSL) module.

7

8 16. A computer program product in accordance with Claim 12, wherein the  
9 computer-executable instructions for performing a specific act of the external client  
10 providing security to the connection comprises a Secure Socket Layer (SSL) module.

11

12 17. A computer program product in accordance with Claim 12, wherein the  
13 computer-executable instructions for performing a specific act of the external client  
14 providing security to the connection comprises a Wireless Transport Layer Security  
15 (WTLS) module.

16

17 18. A computer program product in accordance with Claim 12, wherein the  
18 computer-executable instructions for performing a specific act of the external client  
19 providing security to the connection comprises a module that reside at or above the socket  
20 layer in a protocol stack.

1       19. In a network environment that includes a public network such as the  
2 Internet and a private corporate network contained in the public network, the public  
3 network including a client external to the private corporate network, a method of a  
4 communications device of the external client establishing a secure connection over a public  
5 network to the private corporate network without restricting the communications device to  
6 working through the private corporate network, the method comprising the following;

7                  a step for securely connecting to the private corporate network while  
8 retaining the ability to establish a separate and distinct connection with a resource  
9 outside of the private corporate network; and

10                 during at least a portion of the step for security connecting, a specific act of  
11 establishing a connection with the resource outside of the private corporate  
12 network.

13  
14       20. A method in accordance with Claim 19, wherein the step for securely  
15 connecting to the private corporate network comprises the following:

16                 a specific act of the external client establishing a connection with the private  
17 corporate network over the public network using the communication device;

18                 a specific act of the external client providing security to the connection;

19                 a specific act of the external client maintaining a session that uses the secure  
20 connection to communicate with the private corporate network; and

21                 during at least a portion of the specific act of the external client maintaining  
22 a session that uses the secure connection, a specific act of the communication  
23 device retaining the ability to establish a separate and distinct connection with  
24 another resource outside of the private corporate network.

1  
2       21. A method in accordance with Claim 11, wherein the public network  
3 comprises portions of the Internet.  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

WORKMAN, NYDEGGER & SEELEY

A PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW  
1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UTAH 84111

1       22. In a network environment that includes a public network such as the  
2 Internet and a private corporate network contained in the public network, the public  
3 network including a client external to the private corporate network, a method of a server  
4 computer system within a private corporate network establishing a secure connection with  
5 a communications device of the external client without restricting the communications  
6 device to working through the private corporate network, the method comprising the  
7 following;

8                  a specific act of the server computer system facilitating the establishment of  
9 a connection with the external client over the public network;

10                 a specific act of the server computer system facilitating the providing of  
11 security to the connection, wherein the secure connection is established while  
12 allowing the external client to maintain the ability to establish a separate and  
13 distinct connection.

14  
15       23. A method in accordance with Claim 22, wherein the server computer  
16 system comprises a Virtual Private Network (VPN) server in the private corporate  
17 network.

18  
19       24. A method in accordance with Claim 22, wherein the specific act of the  
20 server computer system facilitating the establishment of a connection with the external  
21 client comprises:

22                  a specific act of using Transmission Control Protocol (TCP), to facilitate the  
23 establishment of a connection with the external client.

1       25. A method in accordance with Claim 22, wherein the specific act of the  
2 server computer system facilitating the providing of security to the connection comprises:

3                  a specific act of using Secure Socket Layer (SSL), to facilitate the providing  
4 of security to the connection.

5  
6       26. A method in accordance with Claim 22, wherein the specific act of the  
7 server computer system facilitating the providing of security to the connection comprises:

8                  a specific act of using Wireless Transport Layer Security (WTLS), to  
9 facilitate the providing of security to the connection.